UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,149	08/11/2006	Arun Ramaswamy	20004/234-US	6869

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EXAMINER
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ART UNIT	PAPER NUMBER
2427	

NOTIFICATION DATE	DELIVERY MODE
07/19/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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mhanley@hfzlaw.com
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<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
10/589,149</td><td>Applicant(s)
RAMASWAMY ET AL.</td></tr>
<tr><td>Examiner
PATRICK A. RYAN</td><td>Art Unit
2427</td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 April 2010</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *See Continuation Sheet* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *See Continuation Sheet* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims pending in the application are 1,4,5,7,9-11,16-18,20-29,31-33,37-39,42,60,61,63,65,72,74,76,78,80-82,95,102 and 107-112.

Continuation of Disposition of Claims: Claims rejected are 1,4,5,7,9-11,16-18,20-29,31-33,37-39,42,60,61,63,65,72,74,76,78,80-82,95,102 and 107-112.

DETAILED ACTION

1.   This Office action is made in reply to Request for Continued Examination, filed April 5, 2010. Applicant has amended Claims 1, 60, 72, 76, and 110-112; no claims have been added; and no claims have been cancelled. As amended, Claims 1, 4, 5, 7, 9-11, 16-18, 20-29, 31-33, 37-39, 42, 60, 61, 63, 65, 72, 74, 76, 78, 80-82, 95, 102 and 107-112 are presented for examination.

2.   In Office action mailed January 6, 2010 ("Office Action"):

Claims 1, 4, 5, 7, 9-11, 16-18, 20-29, 31-33, 37-39, 42, 60, 61, 63, 65, 72, 74, 76, 78, 80-82, 95, 102 and 107-112 were rejected under 35 U.S.C. 103(a) as being unpatentable over Aras et al. United States Patent (5,872,588), in view of Link et al. United States Patent (6,289,514 B1).

Continued Examination Under 37 CFR 1.114

3.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 4, 2010 ("Reply") has been entered.

Response to Arguments

4.   Applicant's arguments, see Reply Pages 15-22, with respect to the limitation "the server metering device being different from the first subscriber site", as recited in Claims 1 and 72, have been fully considered but they are not persuasive.

Applicant presents that the combination of Aras and Link does not teach the limitation the Claim 1 and 72 limitation of "obtaining VOD server metering data that is determined using a server metering device different from a site metering device used to determine the subscriber metering data, and that is located separate from the first subscriber site being monitored" (Reply Pages 16-17; with further reference to Office Action Pages 6-8). The Examiner respectfully disagrees.

The Examiner has previously presented that the claimed "server metering device" was taught by Aras using ITV Server 103 of Fig. 4A (as presented in Office Action Page 7 and described by Aras in Col. 13 Lines 7-23). Additionally, as shown in Figs. 4A and 4B, Aras demonstrates a "subscriber metering device" by way of Home Station 111, which comprises a Monitor 1555 (shown in Fig. 15) for determining subscriber metering data (as disclosed in Col. 24 Line 44—Col. 25 Line 17). Therefore, it is the Examiner's position that Aras demonstrates a server metering device being difference from a first subscriber site and located separate from the first subscriber site (as further addressed below).

5.   Applicant's arguments, see Reply Pages 15-22, with respect to the limitation "uniquely identifying a first subscriber site among a plurality of subscriber sites", as

recited in Claims 1, 60, and 72 have been fully considered, but are moot in view of new

grounds of rejection.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1, 4, 5, 7, 9-11, 16-18, 20-29, 31-33, 37-39, 42, 60, 61, 63, 65, 72, 74, 76,

78, 80-82, 95, 102 and 107-112 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Aras et al. United States Patent (5,872,588) hereinafter "Aras", in

view of Link et al. United States Patent (6,289,514 B1) hereinafter "Link" and in further

view of Grauch et al. United States Patent (6,983,478 B1) hereinafter "Grauch".

8.   In regards to Claim 1, Aras teaches a method to monitor presentation of video-

on-demand (VOD) content (collection of data on behavior of subscribers to audio-visual

materials such as VOD content, as introduced in Col. 6 Lines 32-54 and Col. 13 Line

24—Col. 14 Line 24; with further reference to Fig. 6, as introduced in Col. 14 Lines 25-

43 and Col. 12 Lines 39-54), the method comprising:

        obtaining subscriber metering data corresponding to media content presented at

a first subscriber site, the subscriber metering data determined using a site metering

device (operations of Monitor 1555 of Home Station shown in Fig. 15 and further

detailed in Figs. 16 and 17, as described in Col. 24 Line 56—Col. 25 Line 41 and Col.

25 Line 42—Col. 26 Line 32 for performing the process of "Behavior Collection &

Reporting", as introduced in Col. 13 Line 24--Col. 14 Lines 24 and shown in Fig. 6(i), as

described in Col. 17 Line 23—Col. 18 Line 9; with further reference to Behavior

Collection Table (BCT), as introduced in Col. 20 Lines 15-33 and shown in Figs. 10-13);

  obtaining server metering data determined using a server metering device in

communication with a VOD server (operations of ITV Server 103 in communication with

Broadcast Server 101, as described in Col. 12 Line 40—Col. 13 Line 23 and shown in

Figs. 4A and 4B; with further reference to Col. 4 Lines 41-57), the VOD server

configured to provide the VOD content specifically to the first subscriber site among a

plurality of subscriber sites (Audio-Visual Identifiers (AVIs), as introduced in Col. 7 Lines

31-67; with further reference to Content and Network related Extension Fields of Tables

II and III, identifying information such as zip code of local distribution node, as described

in Col. 9 Line 17—Col. 10 Line 7), the server metering device being different from the

site metering device and located separate from the first subscriber site (ITV Server 103

located separate from Monitor 1555 of Home Station 111, as shown in Figs. 4A and

4B), the server metering device communicatively coupled to the VOD server using an

interface separate from a distribution network used to convey the VOD content from the

VOD server to the first subscriber site (ITV Backbone Network 105 separate from Local

Distribution Network 109, as shown in Figs. 4A and 4B); and

the subscriber metering data indicating whether the VOD content was selected

for presentation at the first subscriber site (VOD navigation operations such as pause,

rewind, slomo, and fast forward, as disclosed in Col. 23 Lines 27-38), and

the server metering data identifying the VOD content provided by the VOD server

specifically to the first subscriber site (AVI Content Extensions Fields (AVI-EC) including

information such as Content Type and Application Category, as shown in Table II of

Col. 10 and described in Col. 9 Line 17—Col. 10 Line 8) and also identifying the first

subscriber site (AVI Distribution Extension Fields (AVI-ED) included in the program

stream by content and network providers, where the AVI-ED can be used to identify the

zip code of a local distribution node, as described in Col. 9 Line 17—Col. 10 Line 8, Col.

13 Lines 7-23; with further reference to Table III in Col. 10).

Aras describes a method performed by Behavior Collection Center (BCC) 121 of

Fig. 4a for taking information collected by various home stations and processing it for

various marketing, broadcast planning, advertising, and Audio-Video Material (AVM)

provider organizations (as disclosed in Col. 12 Lines 51-54). Aras additionally discloses

in Col. 13 Lines 7-23 that the BCC 121 will collect, collate, analyze, and process the

information so that it can be provided to various advertising agencies, marketing

agencies, and AV material. However, Aras is unclear if the BCC 121 performs the step

a of electronically combining the subscriber metering data and the server metering data

to monitor the VOD content provided specifically to the first subscriber site.

In a similar field of invention, Link discloses a system and method for capturing

and reporting consumer behaviors concerning television use (Abstract, Fig. 1, and Fig.

8). Link discloses the use of Asset Code Server 202 of Fig. 1A for assigning a rage of

codes to an entity, such as a company or organization (as discussed in Col. 5 Lines 23-

31). Link further discloses monitoring subscriber behavior at STB 207 of Fig. 1B and

reporting any interesting action which is considered significant (as disclosed in Col. 6

Lines 7-17). Link additionally teaches the use of Asset Viewer Ship Consolidator 214

operating in accordance with the method of Fig. 8 to combined the asset tag timestamp

records 110 for the head end 301 with the STB aggregate data 109 to determine the

consumer behavior with regards to individual assets (as disclosed in Col. 10 Line 40—

Col. 11 Line 39).

Both Aras and Link teach similar techniques and systems for monitoring and

reporting user interaction with television content. Aras teaches monitoring and

collecting data regarding users' interaction with VOD content, which is then sent to BCC

121 for processing in accordance with AVI data provided by Content and Network

providers. Link additionally teaches Asset Viewer Ship Consolidator 214, operating in a

similar fashion to BCC 121 of Aras, for the purpose of combining distributor and

consumer data for the purpose of determining consumer behavior with regard to

television content (in accordance with Fig. 8). Therefore, one of ordinary skill in the art

at the time of the invention would have recognized that the functionality of BCC 121 of

Aras and Asset Viewer Ship Consolidator 214 are usable together. Additionally, one of

ordinary skill in the art would have been motivated to employ the "combining" and

"consolidating" aspects of Link with the teachings of Aras in order to create a centralized

representation of users' behavior with television content associated with data describing

the content itself so that the data can be more efficiently interpreted (such as that shown in Fig. 9 of Link).

The combination of Aras and Link describes identifying groups of subscriber sites a common a common distribution node identified by a zip code, but does not clearly disclose uniquely identifying the first subscriber site.

In a similar field of invention, Grauch teaches a method and system for tracking and storing events generated from a subscriber's use of a multimedia device (Absract). Grauch discloses uniquely identifying the subscriber device by collecting a "STB Unique Address" as part of Event Records uploaded from a particular subscriber device (as disclosed in Col. 14 Lines 28-52, with particular reference to Table X; and further reference to Col. 3 Lines 3-21). Grauch further discloses that the unique address is used in a "merging and parsing process" to generate an event timeline for each STB (as disclosed in Col. 19 Lines 25-55; with further reference to the method of Figs. 6A and 6B and example of Fig. 7).

Each of Aras, Link, and Grauch teach similar techniques of monitoring and reporting user interaction with television content. Grauch additionally teaches generating a specific timeline of user interaction for device in the monitoring system. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the behavior collection system of Aras to include the technique of uniquely identifying a subscriber site, as taught by Grauch, in order to provide more targeted advertisements (as Grauch discusses in Col. 2 Lines 22-34).

9.   In regards to Claim 4, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 1 wherein the server metering data comprises VOD content

metadata (Aras demonstrates "Application Category" such as for identifying VOD

content, as shown in Table II of Col. 10; with further reference to "Title", "Description",

and "Rating" of Table VI in Col. 11, as described in Col. 9 Line 17—Col. 10 Line 9 and

Col. 26 Line 62—Col. 27 Line 4).

10.   In regards to Claim 5, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 1 wherein the server metering data comprises VOD content

identification information (Aras demonstrates "Application Category" such as for

identifying VOD content, as shown in Table II of Col. 10; with further reference to "Title",

"Description", and "Rating" of Table VI in Col. 11, as described in Col. 9 Line 17—Col.

10 Line 9 and Col. 26 Line 62—Col. 27 Line 4).

11.   In regards to Claim 7, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 1 wherein the server metering data comprises a set-top box

identifier associated with the first subscriber site (Grauch discloses uniquely identifying

the subscriber device by collecting a "STB Unique Address" as part of Event Records

uploaded from a particular subscriber device (as disclosed in Col. 14 Lines 28-52, with

particular reference to Table X; and further reference to Col. 3 Lines 3-21).

12.   In regards to Claim 9, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 1 wherein the server metering data comprises VOD server

information (Network Provider ID of Table III of Col. 10, as described in Col. 9 Lines 17-

29).

13.   In regards to Claim 10, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 9 wherein the VOD server information describes a status of

a VOD session initiated between the VOD server and the first subscriber site (Aras

teaches Command Capture for VOD, as described in Col. 23 Lines 27-54).

14.   In regards to Claim 11, the combination of Aras, Link, and Grauch teaches a

method as described in Claim 10 wherein the status of the VOD session corresponds to

at least one of beginning the VOD session, ending the VOD session, providing

informational status, starting a VOD stream during the VOD session, stopping a VOD

stream during the VOD session, performing a navigation operation during the VOD

session or performing a trickmode during the VOD session (Aras teaches tracking VOD

navigation operations such as pause, rewind, slomo, and fast forward, as disclosed in

Col. 23 Lines 27-38).

15.   In regards to Claim 16, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 1 wherein the subscriber metering data comprises VOD

activity information (Aras teaches tracking VOD navigation operations such as pause,

rewind, slomo, and fast forward, as disclosed in Col. 23 Lines 27-38; with further

reference to additional user interactions described in Col. 13 Line 65—Col. 14 Line 24).

16.   In regards to Claim 17, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 16 wherein the VOD activity information comprises a VOD

virtual channel selected to receive the VOD content (Aras teaches generation of event

data based on a channel change by the subscriber, as described in Col. 14 Lines 1-24;

with further reference to Fig. 6c, as described in Col. 34-57. Link additionally describes virtual channel numbers in Col. 11 Lines 2-4).

17.   In regards to Claim 18, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 1 wherein the subscriber metering data comprises VOD content identification information (Aras teaches VOD application the subscribers screen may contain title, category of movie to be viewed, the rating, and the mode, as disclosed in Col. 23 Lines 55-66).

18.   In regards to Claim 20, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 1 wherein the subscriber metering data comprises VOD content metadata (Aras teaches VOD application the subscribers screen may contain title, category of movie to be viewed, the rating, and the mode, as disclosed in Col. 23 Lines 55-66).

19.   In regards to Claim 21, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 1 wherein the subscriber metering data comprises at least one of a public or private content identifier included in a data bit stream used to carry the VOD content (Aras teaches AVI information can be inserted as private data, as disclosed in Col. 13 Lines 44-46; with further reference to Col. 22 Lines 43-58).

20.   In regards to Claim 22, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 21 wherein the at least one of the public or private content identifier corresponds to at least one of an MPEG-2 data field or an AC3 data field (Aras teaches the private data is corresponds to an MPEG-2 transport stream, as disclosed in Col. 13 Lines 34-52).

21.   In regards to Claim 23, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 1 wherein the subscriber metering data comprises viewing information (Aras teaches a tracking a variety of subscriber interactions (i.e. "events") such as channel change and trick play operations, as described in Col. 14 Lines 8-24).

22.   In regards to Claim 24, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 23 wherein the viewing information comprises at least one of content codes or content signatures (Aras teaches monitoring of AVMs selected by the subscriber for presentation, as described in Col. 13 Lines 24-58).

23.   In regards to Claim 25, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 23 wherein the viewing information comprises an indicator corresponding to whether a subscriber viewing device is turned ON (Aras teaches Power Off Event, as described in Col. 16 Lines 34-51 and shown in Fig. 6e).

24.   In regards to Claim 26, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 23 wherein the viewing information corresponds to operating states associated with presenting the VOD content (Aras teaches a tracking a variety of subscriber interactions (i.e. "events") such as channel change and trick play operations, as described in Col. 14 Lines 8-24).

25.   In regards to Claim 27, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 26 wherein the operating states comprise at least one of a play state, a resume state, a mute state, a pause state, a rewind state or a fast-forward state (Aras teaches VOD interactions such as pause, rewind, slomo, and fast forward, as disclosed in Col. 23 Lines 27-38).

26.   In regards to Claim 28, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 1 wherein the subscriber metering data comprises

subscriber identification information (Aras discloses Home Station Identification Number

1401 and Subscriber Number 1403, as described in Col. 17 Lines 30-38).

27.   In regards to Claim 29, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 28 wherein the subscriber identification information

comprises at least one of a set-top box identifier, a VOD content order request or VOD

billing information (Aras discloses Home Station Identification Number 1401 and

Subscriber Number 1403, as described in Col. 17 Lines 30-38, where Home Station can

be a set-top box, as described in Col. 24 Lines 29-43).

28.   In regards to Claim 31, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 1 wherein the subscriber metering data is stored in at least

one viewing record (Aras teaches BCTs of Figs. 10-13 stored at Home Station, as

described in Col. 20 Lines 15-33).

29.   In regards to Claim 32, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 31 wherein the viewing record comprises at least one of a

home unit identifier or a set-top box identifier (Aras discloses Home Station

Identification Number 1401 and Subscriber Number 1403, as described in Col. 17 Lines

30-38, where Home Station can be a set-top box, as described in Col. 24 Lines 29-43).

30.   In regards to Claim 33, the combination of Aras, Link, and Grauch teaches a

method as defined in Claim 31 wherein the subscriber metering data is timestamped

(Aras teaches BCTs of Figs. 12 and 13 recording Start Times and End Times, as described in Col. 20 Lines 34-40).

31.   In regards to Claim 37, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 1 wherein combining the subscriber metering data and the server metering data comprises augmenting the subscriber metering data with at least selected portions of the server metering data (Link teaches combination of asset timestamp records 110 for the head end 301 with the STB aggregated data 109, as described in Col. 10 Lines 51-65).

32.   In regards to Claim 38, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 1 wherein combining the subscriber metering data and the server metering data comprises projecting the server metering data onto the subscriber metering data based on statistical characteristics common to the subscriber metering data and the server metering data (Link teaches a process of matching channel line up data, published schedule data, and timestamp data, as shown in Fig. 8 and described in Col. 11-39. Aras additionally discloses the use of a subscriber profile, as described in Col. 24 Lines 11-26).

33.   In regards to Claim 39, the combination of Aras, Link, and Grauch teaches a method as defined in Claim 1 wherein combining the subscriber metering data and the server metering data comprises projecting a plurality of subscriber metering data onto the server metering data based on statistical characteristics common to the plurality of subscriber metering data and the server metering data (Link teaches a process of matching channel line up data, published schedule data, and timestamp data, as shown

in Fig. 8 and described in Col. 11-39. Aras additionally discloses the use of a

subscriber profile, as described in Col. 24 Lines 11-26).

34.   In regards to Claim 42, the combination of Aras, Link, and Grauch teaches a

method as defined in claim 1 wherein combining the subscriber metering data and the

server metering data comprises verifying the subscriber metering data based on the

server metering data (Link teaches verifying subscriber and headend data by way of

Channel Line Up table, as described in Col. 11 Lines 25-36).

35.   In regards to Claim 60, Aras teaches an article of manufacture storing machine

readable instructions (operations of BCC 121 of Fig. 4A in accordance with Fig. 6, as

introduced in Col. 14 Lines 25-43 and Col. 12 Lines 39-54; with further reference to Col.

6 Lines 1-28) that, when executed, cause a machine to:

    obtain server metering data corresponding to a video-on-demand (VOD) server

configured to provide VOD content specifically to a first subscriber site among a plurality

of subscriber sites (Audio-Visual Identifiers (AVIs), as introduced in Col. 7 Lines 31-67;

with further reference to Content and Network related Extension Fields of Tables II and

III, as described in Col. 9 Line 17—Col. 10 Line 7; with further reference to Monitor 1555

of Home Station shown in Fig. 15 and further detailed in Figs. 16 and 17, as described

in Col. 24 Line 56—Col. 25 Line 41 and Col. 25 Line 42—Col. 26 Line);

    obtain subscriber metering data corresponding to media content presented at the

first subscriber site ("Behavior Collection & Reporting", as introduced in Col. 13 Line 24-

-Col. 14 Lines 24 and shown in Fig. 6(i), as described in Col. 17 Line 23—Col. 18 Line

9; with further reference to Behavior Collection Table (BCT), as introduced in Col. 20

Lines 15-33 and shown in Figs. 10-13);

the subscriber metering data indicating whether the VOD content was selected

for presentation at the first subscriber site, (VOD navigation operations such as pause,

rewind, slomo, and fast forward, as disclosed in Col. 23 Lines 27-38) and

the server metering data identifying the VOD content provided by the VOD server

specifically to the first subscriber site (AVI Content Extensions Fields (AVI-EC) including

information such as Content Type and Application Category, as shown in Table II of

Col. 10 and described in Col. 9 Line 17—Col. 10 Line 8) and also identifying the first

subscriber site (AVI Distribution Extension Fields (AVI-ED) included in the program

stream by content and network providers, where the AVI-ED can be used to identify the

zip code of a local distribution node, as described in Col. 9 Line 17—Col. 10 Line 8, Col.

13 Lines 7-23; with further reference to Table III in Col. 10).

Aras describes a method performed by Behavior Collection Center (BCC) 121 of

Fig. 4a for taking information collected by various home stations and processing it for

various marketing, broadcast planning, advertising, and Audio-Video Material (AVM)

provider organizations (as disclosed in Col. 12 Lines 51-54). Aras additionally discloses

in Col. 13 Lines 7-23 that the BCC 121 will collect, collate, analyze, and process the

information so that it can be provided to various advertising agencies, marketing

agencies, and AV material. However, Aras is unclear if the BCC 121 performs the

operation to combine the subscriber metering data and the server metering data to

monitor the VOD content provided specifically to the first subscriber site or if subscriber

metering data does not identify the VOD content.

In a similar field of invention, Link discloses a system and method for capturing

and reporting consumer behaviors concerning television use (Abstract, Fig. 1, and Fig.

8). Link discloses the use of Asset Code Server 202 of Fig. 1A for assigning a rage of

codes to an entity, such as a company or organization (as discussed in Col. 5 Lines 23-

31). Link further discloses monitoring subscriber behavior at STB 207 of Fig. 1B and

reporting any interesting action which is considered significant (as disclosed in Col. 6

Lines 7-17). Link additionally teaches the use of Asset Viewer Ship Consolidator 214

operating in accordance with the method of Fig. 8 to combined the asset tag timestamp

records 110 for the head end 301 with the STB aggregate data 109 to determine the

consumer behavior with regards to individual assets (as disclosed in Col. 10 Line 40—

Col. 11 Line 39). Link also discloses that during the consolidation process, if program

information is missing from the aggregated subscriber data then from the head end

records is used to update the Viewership Consolidated Database 114 (as described in

Col. 10 Line 43—Col. 11 Line 43).

Both Aras and Link teach similar techniques and systems for monitoring and

reporting user interaction with television content. Aras teaches monitoring and

collecting data regarding users' interaction with VOD content, which is then sent to BCC

121 for processing in accordance with AVI data provided by Content and Network

providers. Link additionally teaches Asset Viewer Ship Consolidator 214, operating in a

similar fashion to BCC 121 of Aras, for the purpose of combining distributor and

consumer data for the purpose of determining consumer behavior with regard to

television content (in accordance with Fig. 8). Therefore, one of ordinary skill in the art

at the time of the invention would have recognized that the functionality of BCC 121 of

Aras and Asset Viewer Ship Consolidator 214 are usable together. Additionally, one of

ordinary skill in the art would have been motivated to employ the "combining" and

"consolidating" aspects of Link with the teachings of Aras in order to create a centralized

representation of users' behavior with television content associated with data describing

the content itself so that the data can be more efficiently interpreted (such as that shown

in Fig. 9 of Link).

The combination of Aras and Link describes identifying groups of subscriber sites

a common a common distribution node identified by a zip code, but does not clearly

disclose including an identifier to uniquely identify uniquely the first subscriber site, the

subscriber metering data and the server metering data to be combined based on the

identifier.

In a similar field of invention, Grauch teaches a method and system for tracking

and storing events generated from a subscriber's use of a multimedia device (Absract).

Grauch discloses uniquely identifying the subscriber device by collecting a "STB Unique

Address" as part of Event Records uploaded from a particular subscriber device (as

disclosed in Col. 14 Lines 28-52, with particular reference to Table X; and further

reference to Col. 3 Lines 3-21). Grauch further discloses that the unique address is

used in a "merging and parsing process" to generate an event timeline for each STB (as

disclosed in Col. 19 Lines 25-55; with further reference to the method of Figs. 6A and 6B and example of Fig. 7).

Each of Aras, Link, and Grauch teach similar techniques of monitoring and reporting user interaction with television content. Grauch additionally teaches generating a specific timeline of user interaction for device in the monitoring system. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the behavior collection system of Aras to include the technique of uniquely identifying a subscriber site, as taught by Grauch, in order to provide more targeted advertisements (as Grauch discusses in Col. 2 Lines 22-34).

36.   In regards to Claim 61, the combination of Aras, Link, and Grauch teaches an article of manufacture as defined in Claim 60 wherein the server metering data comprises at least one of VOD content metadata, VOD content identification information, subscriber identification information or VOD server information (Aras demonstrates "Application Category" such as for identifying VOD content, as shown in Table II of Col. 10; with further reference to "Title", "Description", and "Rating" of Table VI in Col. 11, as described in Col. 9 Line 17—Col. 10 Line 9 and Col. 26 Line 62—Col. 27 Line 4).

37.   In regards to Claim 63, the combination of Aras, Link, and Grauch teaches an article of manufacture as defined in Claim 60 wherein the subscriber metering data comprises at least one of VOD activity information, VOD content identification information, VOD content metadata, viewing information, subscriber identification information or audience demographics (Aras teaches tracking VOD navigation

operations such as pause, rewind, slomo, and fast forward, as disclosed in Col. 23

Lines 27-38; with further reference to additional user interactions described in Col. 13

Line 65—Col. 14 Line 24).

38.   In regards to Claim 65, the combination of Aras, Link, and Grauch teaches an

article of manufacture as defined in claim 60 wherein the machine readable instructions,

when executed, cause the machine to combine the subscriber metering data and the

server metering data by at least one of augmenting or verifying the subscriber metering

data with at least selected portions of the server metering data (Link teaches a process

of matching channel line up data, published schedule data, and timestamp data, as

shown in Fig. 8 and described in Col. 11-39. Aras additionally discloses the use of a

subscriber profile, as described in Col. 24 Lines 11-26).

39.   In regards to Claim 72, Aras teaches a system to monitor presentation of video-

on-demand (VOD) content (operations of system of Fig. 4A for collecting data on

behavior of subscribers to audio-visual materials such as VOD content, as introduced in

Col. 6 Lines 32-54 and Col. 13 Line 24—Col. 14 Line 24; with further reference to Fig. 6,

as introduced in Col. 14 Lines 25-43 and Col. 12 Lines 39-54), the system comprising:

        <u>a metering home interface to process a captured image to determine subscriber</u>

<u>metering data corresponding to VOD content presented at a first subscriber site</u>

(operations of Monitor 1555 of Home Station shown in Fig. 15 and further detailed in

Figs. 16 and 17, as described in Col. 24 Line 56—Col. 25 Line 41 and Col. 25 Line 42—

Col. 26 Line 32 for performing the process of "Behavior Collection & Reporting", as

introduced in Col. 13 Line 24--Col. 14 Lines 24 and shown in Fig. 6(i), as described in

Col. 17 Line 23—Col. 18 Line 9; with further reference to Behavior Collection Table

(BCT), as introduced in Col. 20 Lines 15-33 and shown in Figs. 10-13);

a metering server interface to determine server metering data corresponding to a

VOD server configured to provide the VOD content specifically to the first subscriber

site in among plurality of subscriber sites (ITV Server 103 of Fig. 4A, as described in

Col. 13 Lines 7-23; with further reference to Col. 4 Line 58—Col. 5 Line 4 for providing

Audio-Visual Identifiers (AVIs), as introduced in Col. 7 Lines 31-67; with further

reference to Content and Network related Extension Fields of Tables II and III, as

described in Col. 9 Line 17—Col. 10 Line 7), the metering server interface being

different from the metering home interface and located separate from the first subscriber

site (ITV Server 103 located separate from Monitor 1555 of Home Station 111, as

shown in Figs. 4A and 4B), the metering server interface communicatively coupled to

the VOD server without being communicatively coupled to a distribution network used to

convey the VOD content from the VOD server to the first subscriber site (ITV Backbone

Network 105 separate from Local Distribution Network 109, as shown in Figs. 4A and

4B); and

the first metering data included in the subscriber metering data indicating that

VOD content was selected for presentation at the first subscriber site (VOD navigation

operations such as pause, rewind, slomo, and fast forward, as disclosed in Col. 23

Lines 27-38), and

the second metering data included in the server metering data identifying the

VOD content provided by the VOD server specifically to the first subscriber site (AVI

Content Extensions Fields (AVI-EC) including information such as Content Type and

Application Category, as shown in Table II of Col. 10 and described in Col. 9 Line 17—

Col. 10 Line 8) and also identifying the first subscriber site (AVI Distribution Extension

Fields (AVI-ED) included in the program stream by content and network providers,

where the AVI-ED can be used to identify the zip code of a local distribution node, as

described in Col. 9 Line 17—Col. 10 Line 8, Col. 13 Lines 7-23; with further reference to

Table III in Col. 10).

Aras describes a method performed by a central facility in the form of Behavior

Collection Center (BCC) 121 of Fig. 4a for taking information collected by various home

stations and processing it for various marketing, broadcast planning, advertising, and

Audio-Video Material (AVM) provider organizations (as disclosed in Col. 12 Lines 51-

54). Aras additionally discloses in Col. 13 Lines 7-23 that the BCC 121 will collect,

collate, analyze, and process the information so that it can be provided to various

advertising agencies, marketing agencies, and AV material. However, Aras is unclear if

the BCC 121 is used to combine the subscriber metering data and the server metering

data by replacing first metering data included in the subscriber metering data with

second metering data included in the server metering data to monitor the VOD content

provided specifically to the first subscriber site or if subscriber metering data does not

identify the VOD content.

In a similar field of invention, Link discloses a system and method for capturing

and reporting consumer behaviors concerning television use (Abstract, Fig. 1, and Fig.

8). Link discloses the use of Asset Code Server 202 of Fig. 1A for assigning a rage of

codes to an entity, such as a company or organization (as discussed in Col. 5 Lines 23-

31). Link further discloses monitoring subscriber behavior at STB 207 of Fig. 1B and

reporting any interesting action which is considered significant (as disclosed in Col. 6

Lines 7-17). Link additionally teaches the use of Asset Viewer Ship Consolidator 214

operating in accordance with the method of Fig. 8 to combined the asset tag timestamp

records 110 for the head end 301 with the STB aggregate data 109 to determine the

consumer behavior with regards to individual assets (as disclosed in Col. 10 Line 40—

Col. 11 Line 39). Link also discloses that during the consolidation process, if program

information is missing from the aggregated subscriber data then from the head end

records is used to update the Viewership Consolidated Database 114 (as described in

Col. 10 Line 43—Col. 11 Line 43). Link's process of Figure 8 further includes the act of

replacing subscriber metering data with server metering data by way of the updating

process using elements 110-112 (as described in Col. 10 Line 43—Col. 11 Line 43)

Both Aras and Link teach similar techniques and systems for monitoring and

reporting user interaction with television content. Aras teaches monitoring and

collecting data regarding users' interaction with VOD content, which is then sent to BCC

121 for processing in accordance with AVI data provided by Content and Network

providers. Link additionally teaches Asset Viewer Ship Consolidator 214, operating in a

similar fashion to BCC 121 of Aras, for the purpose of combining distributor and

consumer data for the purpose of determining consumer behavior with regard to

television content (in accordance with Fig. 8). Therefore, one of ordinary skill in the art

at the time of the invention would have recognized that the functionality of BCC 121 of

Aras and Asset Viewer Ship Consolidator 214 are usable together. Additionally, one of

ordinary skill in the art would have been motivated to employ the "combining" and

"consolidating" aspects of Link with the teachings of Aras in order to create a centralized

representation of users' behavior with television content associated with data describing

the content itself so that the data can be more efficiently interpreted (such as that shown

in Fig. 9 of Link).

The combination of Aras and Link describes identifying groups of subscriber sites

a common a common distribution node identified by a zip code, but does not clearly

disclose including an identifier to uniquely identify uniquely the first subscriber site, the

subscriber metering data and the server metering data to be combined based on the

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In a similar field of invention, Grauch teaches a method and system for tracking

and storing events generated from a subscriber's use of a multimedia device (Absract).

Grauch discloses uniquely identifying the subscriber device by collecting a "STB Unique

Address" as part of Event Records uploaded from a particular subscriber device (as

disclosed in Col. 14 Lines 28-52, with particular reference to Table X; and further

reference to Col. 3 Lines 3-21). Grauch further discloses that the unique address is

used in a "merging and parsing process" to generate an event timeline for each STB (as

disclosed in Col. 19 Lines 25-55; with further reference to the method of Figs. 6A and 6B and example of Fig. 7).

Each of Aras, Link, and Grauch teach similar techniques of monitoring and reporting user interaction with television content. Grauch additionally teaches generating a specific timeline of user interaction for device in the monitoring system. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the behavior collection system of Aras to include the technique of uniquely identifying a subscriber site, as taught by Grauch, in order to provide more targeted advertisements (as Grauch discusses in Col. 2 Lines 22-34).

40.   In regards to Claim 74, the combination of Aras, Link, and Grauch teaches a system as defined in Claim 72 wherein the server metering data further comprises at least one of VOD content metadata or VOD server information (Aras demonstrates VOD content metadata in the form of "Application Category" such as for identifying VOD content, as shown in Table II of Col. 10; with further reference to "Title", "Description", and "Rating" of Table VI in Col. 11, as described in Col. 9 Line 17—Col. 10 Line 9 and Col. 26 Line 62—Col. 27 Line 4).

41.   In regards to Claim 76, the combination of Aras, Link, and Grauch teaches a system as defined in claim 72 wherein the subscriber metering data comprises at least one of VOD activity information, viewing information, subscriber identification information or audience demographics (Aras teaches tracking VOD activity information and viewing information such as pause, rewind, slomo, and fast forward, as disclosed in

Col. 23 Lines 27-38; with further reference to additional user interactions described in

Col. 13 Line 65—Col. 14 Line 24).

42.   In regards to Claim 78, the combination of Aras, Link, and Grauch teaches a

system as defined in Claim 72 wherein the metering server interface comprises a back-

channel monitor to monitor back-channel information received by a VOD service

provider from the first subscriber site (Aras teaches "Reporting Process" of Fig. 4A; with

further reference to Upstream Channel between the Home Station and the Video

Distribution Node, as described in Col. 3 Lines 1-27 and transmission of BCT Table

upstream, as described in Col. 17 Lines 10-56).

43.   In regards to Claim 80, the combination of Aras, Link, and Grauch teaches a

system as defined in Claim 72 wherein the metering server interface comprises a VOD

server information generator to generate VOD server information to describe a status of

a VOD session initiated between the VOD server and the first subscriber site (Aras

teaches Command Capture for VOD, as described in Col. 23 Lines 27-54).

44.   In regards to Claim 81, the combination of Aras, Link, and Grauch teaches a

system as defined in Claim 80 wherein the status of the VOD session corresponds to at

least one of beginning the VOD session, ending the VOD session, providing

informational status, starting a VOD stream during the VOD session, stopping a VOD

stream during the VOD session, performing a navigation operation during the VOD

session or performing a trickmode during the VOD session (Aras teaches tracking VOD

navigation operations such as pause, rewind, slomo, and fast forward, as disclosed in

Col. 23 Lines 27-38).

45.   In regards to Claim 82, the combination of Aras, Link, and Grauch teaches a

system as defined in Claim 72 wherein the metering home interface comprises a set-top

box monitoring interface to monitor operation of a set-top box configured to receive the

media content provided to the first subscriber site (Aras teaches Monitor 1555 of Home

Station, such as a Set-top Box, shown in Fig. 15 and further detailed in Figs. 16 and 17,

as described in Col. 24 Line 29—Col. 25 Line 41 and Col. 25 Line 42—Col. 26 Line 32).

46.   In regards to Claim 95, the combination of Aras, Link, and Grauch teaches a

system as defined in Claim 72 wherein the metering home interface comprises an on-

screen display reader to process a display of a presentation device located at the

subscriber site (Aras teaches Decode and Display Circuitry of Fig. 16, as described in

Col. 24 Lines 29-34).

47.   In regards to Claim 102, the combination of Aras, Link, and Grauch teaches a

system as defined in Claim 72 wherein the metering home interface comprises a sniffer

device to monitor at least one of back-channel communications or broadcast channel

communications between a VOD service provider and the first subscriber site (Aras

teaches AVI Decoder 1559 in conjunction with Monitor 1555 of Fig. 15 and further

detailed in Fig. 17, as described in Col. 25 Line 64—Col. 26 Line 20).

48.   In regards to Claim 107, the combination of Aras, Link, and Grauch teaches a

system as defined in claim 72 further comprising a metadata tagger unit to include VOD

content metadata in the VOD content (Aras teaches AVI encoding by head end, as

described in Col. 11 Line 43--Col. 12 Line 38).

49.   In regards to Claim 108, the combination of Aras, Link, and Grauch teaches a

system as defined in claim 107 wherein the metering server interface comprises a

metadata tag collector to collect metadata from at least one of the plurality of VOD

content (Aras teaches operations of BCC 121, as described in Col. 12 Lines 39-64).

50.   In regards to Claim 109, the combination of Aras, Link, and Grauch teaches a

system as defined in claim 107 wherein the metering home interface comprises a

metadata tag extractor to extract metadata from the selected VOD content (Aras

teaches AVI Decoder 1559 of Fig. 15, as described in Col. 24 Line 44—Col. 25 Line 4).

51.   In regards to Claim 110, the combination of Aras, Link, and Grauch teaches a

system as defined in Claim 72 wherein the central facility is to select at least a portion of

the server metering data based on the subscriber metering data (Link teaches the use

of Head End and Virtual Channel Number to match a record in the asset timestamp

110, as described in Col. 11 Lines 21-24 and shown in Fig. 8).

52.   In regards to Claim 111, the combination of Aras, Link, and Grauch teaches a

system as defined in Claim 110 wherein the central facility is to select the portion of the

server metering data based on a set-top box identifier included in the subscriber

metering data (Link discloses STB ID database of Fig. 9, as described in Col. 11 Lines

10-46).

53.   In regards to Claim 112, the combination of Aras, Link, and Grauch teaches a

system as defined in Claim 111 wherein the central facility is to verify the subscriber

metering data with the portion of the server metering data (Link teaches combination of

asset timestamp records 110 for the head end 301 with the STB aggregated data 109, as described in Col. 10 Lines 51-65).

Conclusion

54.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK A. RYAN whose telephone number is (571)270-5086. The examiner can normally be reached on Mon to Thur, 8:30am - 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. A. R./

Examiner, Art Unit 2427
Wednesday, July 14, 2010

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2427